



PATENT
Attorney Docket No.: 16869S-114300US
Client Reference No.: W1623-01EI

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Masataka INNAN et al.

Application No.: 10/828,881

Filed: April 20, 2004

For: STORAGE DEVICE CONTROL
DEVICE, STORAGE SYSTEM,
RECORDING MEDIUM IN WHICH A
PROGRAM IS STORED,
INFORMATION PROCESSING
DEVICE AND STORAGE SYSTEM
CONTROL METHOD

Confirmation No.: 5624

Examiner: Tan X. Dinh

Art Unit: 2627

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER
37 CFR §1.97 and §1.98

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

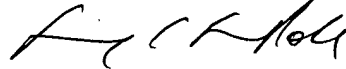
The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the cited foreign patent and non-patent references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement.

However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

6

Complete if Known

Application Number	10/828,881
Filing Date	April 20, 2004
First Named Inventor	Masataka Innan
Art Unit	2627
Examiner Name	Tan X. Dinh
Attorney Docket Number	16869S-114300US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	1	6,976,103	12-13-2005	Watanabe et al.	
	2	6,973,549	12-06-2005	Testardi et al.	
	3	6,922,761	07-26-2005	O'Connell et al.	
	4	2005/0138184	06-23-2005	Amir et al.	
	5	6,883,064	04-19-2005	Yoshida et al.	
	6	2005/0081009	04-14-2005	Williams et al.	
	7	6,876,656	04-05-2005	Brewer et al.	
	8	2005/0055501	03-10-2005	Guha et al.	
	9	6,857,057	02-15-2005	Nelson et al.	
	10	2005/0033878	02-10-2005	Pangal et al.	
	11	6,851,020	02-01-2005	Matsumoto et al.	
	12	2005/0010734	01-13-2005	Soejima et al.	
	13	2005/0010743	01-13-2005	Tremblay et al.	
	14	2004/0260875	12-23-2004	Murotani et al.	
	15	2004/0260966	12-23-2004	Kaiya et al.	
	16	6,826,778	11-30-2004	Bopardikar et al.	
	17	2004/0230980	11-18-2004	Koyama et al.	
	18	6,816,948	11-09-2004	Kitamura et a.	
	19	6,799,255	09-28-2004	Biumenau et al.	
	20	2004/0172510	09-02-2004	Nagashima et al.	
	21	2004/0158652	08-12-2004	Obara	
	22	2004/0158673	08-12-2004	Matsunami et al.	
	23	6,772,315	08-03-2004	Perego	
	24	2004/0148443	07-29-2004	Achiwa et al.	
	25	2004/0143832	07-22-2004	Yamamoto et al.	
	26	2004/0139237	07-15-2004	Rangan et al.	
	27	2004/0123180	06-24-2004	Soejima et al.	
	28	2004/0111485	06-10-2004	Mimatsu et al.	
	29	6,745,281	06-01-2004	Saegusa	
	30	2004/0098547	05-20-2004	Ofek et al.	
	31	2004/0073831	04-15-2004	Yanai et al.	
	32	2004/0068637	04-08-2004	Nelson et al.	
	33	6,718,404	04-06-2004	Reuter et al.	
	34	2004/0064610	04-01-2004	Fukuzawa et al.	
	35	2004/0064641	04-01-2004	Kodama	

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/828,881
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	36	2004/0054850	03-18-2004	Fisk	
	37	2004/0054866	03-18-2004	Blumenau et al.	
	38	6,708,232	03-16-2004	Obara	
	39	2004/0049553	03-11-2004	Iwamura et al.	
	40	6,697,367	02-24-2004	Halstead et al.	
	41	2004/0028043	02-12-2004	Maveli et al.	
	42	6,684,310	01-27-2004	Anzai et al.	
	43	6,681,339	01-20-2004	McKean et al.	
	44	6,681,303	01-20-2004	Watabe et al.	
	45	6,675,268	01-06-2004	DeKonig et al.	
	46	6,675,258	01-06-2004	Bramhall et al.	
	47	2004/0003022	01-01-2004	Garrison et al.	
	48	2003/0229645	12-11-2003	Mogi et al.	
	49	2003/0229764	12-11-2003	Ohno et al.	
	50	2003/0221077	11-27-2003	Ohno et al.	
	51	6,654,831	11-25-2003	Otterness et al.	
	52	6,654,830	11-25-2003	Taylor et al.	
	53	2003/0212854	11-13-2003	Kitamura et al.	
	54	2003/0212860	11-13-2003	Jiang et al.	
	55	6,647,476	11-11-2003	Nagasawa et al.	
	56	6,647,414	11-11-2003	Yanai et al.	
	57	6,647,387	11-11-2003	McKean et al.	
	58	2003/0204597	10-30-2003	Arakawa et al.	
	59	2003/0204700	10-30-2003	Biessener et al.	
	60	6,640,291	10-28-2003	Fujibayashi	
	61	6,640,278	10-28-2003	Nolan et al.	
	62	6,640,278	10-28-2003	Nolan et al.	
	63	2003/0200387	10-23-2003	Urabe et al.	
	64	2003/0189936	10-09-2003	Terrell et al.	
	65	2003/0182525	09-25-2003	O'Connell et al.	
	66	6,622,220	09-16-2003	Yoshida et al.	
	67	2003/0167419	09-04-2003	Yanai et al.	
	68	2003/0163553	08-28-2003	Kitamura et al.	
	69	2003/0158999	08-21-2003	Hauck et al.	
	70	2003/0145168	07-31-2003	LeCrone et al.	

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	71	2003/0145169	07-31-2003	Nagasawa et al.	
	72	6,598,134	07-22-2003	Ofek et al.	
	73	2003/0126327	07-03-2003	Pesola et al.	
	74	6,587,935	07-01-2003	Ofek	
	75	2003/0115218	06-19-2003	Bobbitt et al.	
	76	2003/0115432	06-19-2003	Biessener et al.	
	77	2003/0105931	06-05-2003	Weber et al.	
	78	2003/0101228	05-29-2003	Busser et al.	
	79	2003/0097607	05-22-2003	Bessire	
	80	6,560,673	05-06-2003	Elliot	
	81	6,553,408	04-22-2003	Merrell et al.	
	82	2003/0056038	03-20-2003	Cochran	
	83	2003/0051109	03-13-2003	Cochran	
	84	6,529,976	03-04-2003	Fukuzawa et al.	
	85	2003/0037071	02-20-2003	Harris et al.	
	86	6,523,096	02-18-2003	Sanada et al.	
	87	2002/0194428	12-19-2002	Green	
	88	2002/0194523	12-19-2002	Ulrich et al.	
	89	2002/0019922	12-14-2002	Reuter et al.	
	90	2002/0188592	12-12-2002	Leonhardt et al.	
	91	6,490,659	12-03-2002	McKean et al.	
	92	2002/0178328	11-28-2002	Honda et al.	
	93	2002/0178335	11-28-2002	Selkirk et al.	
	94	6,484,173	11-19-2002	O'Hare et al.	
	95	6,480,934	11-12-2002	Hino et al.	
	96	2002/0156887	10-24-2002	Hashimoto	
	97	2002/0156984	10-24-2002	Padovano	
	98	2002/0156987	10-24-2002	Gajjar, et al.	
	99	6,457,139	09-24-2002	D'Errico et al.	
	100	6,457,109	09-24-2002	Milillo et al.	
	101	2002/0133735	09-19-2002	McKean et al.	
	102	6,453,354	09-17-2002	Jiang et al.	
	103	2002/0124108	09-05-2002	Terrell et al.	
	104	6,446,175	09-03-2002	West et al.	
	105	6,446,141	09-03-2002	Nolan et al.	

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	106	2002/0112113	08-15-2002	Karpoff et al.	
	107	2002/0103889	08-01-2002	Markson et al.,	
	108	2002/0087544	07-04-2002	Selkirk et al.	
	109	2002/0087751	07-04-2002	Chong	
	110	2002/0065864	05-30-2002	Hartsell et al.	
	111	6,363,462	03-16-2002	Bergsten et al.	
	112	6,356,977	03-12-2002	Ofek et al.	
	113	2002/0029326	03-07-2002	Reuter et al	
	114	2002/0026558	02-28-2002	Reuter et al	
	115	2002/0019908	02-14-2002	Reuter et al.	
	116	2002/0019920	02-14-2002	Reuter et al	
	117	2002/0019923	02-14-2002	Reuter et al	
	118	6,341,329	01-22-2002	LeCrone et al.	
	119	2002/0004857	01-10-2002	Arakawa et al.	
	120	2002/0004890 A1	01-10-2002	Ofek et al.	
	121	2001/0054133	12/20/2001	Murotani, et al.	
	122	2001/0050915	12-13-2001	O'Hare et al.	
	123	2001/0052018	12-13-2001	Yokokura	
	124	2001/0052018	12-13-2001	Yokokura	
	125	RE37,305	07-31-2001	Chang et al.	
	126	6,247,103	06-12-2001	Kern et al.	
	127	6,247,099	06-12-2001	Skazinski et al.	
	128	6,240,494	05-29-2001	Nagasawa et al.	
	129	6,240,486	05-29-2001	Ofek et al.	
	130	6,230,239	05-08-2001	Sakaki et al.	
	131	6,219,753	04-17-2001	Richardson	
	132	6,209,002	03-27-2001	Gagne et al.	
	133	6,195,730	02-27-2001	West	
	134	6,173,374	01-09-2001	Heil et al.	
	135	6,101,497	08-08-2000	Ofek	
	136	6,098,129	08-01-2000	Fukuzawa et al.	
	137	6,044,444	03-28-2000	Ofek	
	138	6,012,123	01-04-2000	Pecone et al.	
	139	5,978,890	11-02-1999	Ozawa et al.	
	140	5,956,750	09-21-1999	Yamamoto et al.	

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		Number Kind Code ² (if known)			
	141	5,917,723	06-29-1999	Binford	
	142	5,895,495	04-20-1999	Loechel et al.	
	143	5,870,537	02-09-1999	Kern et al.	
	144	5,835,954	11-10-1998	Duyanovich et al.	
	145	5,809,285	09-15-1998	Hilland	
	146	5,758,118	05-26-1998	Choy et al.	
	147	5,680,640	10-21-1997	Ofek et al.	
	148	5,680,590	10-21-1997	Beardsley et al.	
	149	5,680,640	10-21-1997	Ofek, et al.	
	150	5,574,950	11-12-1996	Hathorn et al.	
	151	5,548,712	08-20-1996	Larson et al.	
	152	5,504,982	04-02-1996	Chai et al.	
	153	5,459,957	10-17-1995	Ludlam et al.	
	154	5,408,465	01-18-1995	Gusella et al.	
	155	5,155,845	10-13-1992	Beal et al.	
	156	4,710,868	12-01-1987	Cocke et al.	
	157	4,025,904	05-24-1977	Adney et al.	
	158	3,771,137	11-06-1973	Barner et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (<i>if known</i>)				
	159	PCT	WO03/023640	A2	03-20-2003	Sanrad		<input type="checkbox"/>
	160	JP	2002-230246	A	08-16-2002	Hitachi Ltd.		abstract
	161	JP	2002-157091	A	05-31-2002	Hitachi Ltd.		abstract
	162	JP	2001-331355	A	11/30/2001	Hitachi, Ltd.		abstract
	163	JP	2001-249853	A	09/14/2001	Hitachi, Ltd.		abstract
	164	JP	2001-067187	A	03-16-2001	Hitachi Ltd.		abstract
	165	JP	2000-293317	A	10-20-2000	Hitachi Ltd.		abstract
	166	JP	11-065980	A	03-09-1999	Hitachi, Ltd.		abstract
	167	JP	10-283272	A	10-23-1998	Hitachi Ltd.		abstract
	168	JP	09-288547	A	11-04-1997	Hitachi Information Technology		abstract

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	169	"Celerra Data Migration Service (CDMS)," White Paper, EMC Corporation Hopkinton, MA (January 2002).	<input type="checkbox"/>
	170	"Data Migration Solution Transferring Data Between Storage Systems over Fibre-channel or SCSI Connections," SANRAD Application Note: APP-003-03, SANRAD Inc. San Mateo, CA (2003).	<input type="checkbox"/>
	171	"Migrating Individual Servers to an iSCSI SAN," SANRAD Application Note:APP-004-0 1, SANRAD Inc. San Mateo, CA (2003).	<input type="checkbox"/>
	172	"Network Attached Storage in the Data Protection Environment," Sony Electronics Inc. (Feb. 2002).	<input type="checkbox"/>
	173	ANDERSON et al. " Hippodrome: Running Circles Around Storage Administration," Proceedings of the 1st USENIX Conference on File and Storage Technologies (January 2002).	<input type="checkbox"/>
	174	MEGGYESI "Fibre Channel Overview," High Speed Interconnect project European Laboratory of Particle Physics (CERN) web page http://hsi.web.cern.ch (August 1994).	<input type="checkbox"/>
	175	SARKAR et al. "Internet Protocol storage area networks," IBM Systems Journal 42: 218-231 (2003).	<input type="checkbox"/>
	176	SICOLA "SCSI-3 Fault Tolerant Controller Configurations Utilizing SCC & New Event Codes," T10 Committee of the International Committee on Information Technology Standards (INCITS), X3T10 95 (October 1995).	<input type="checkbox"/>

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